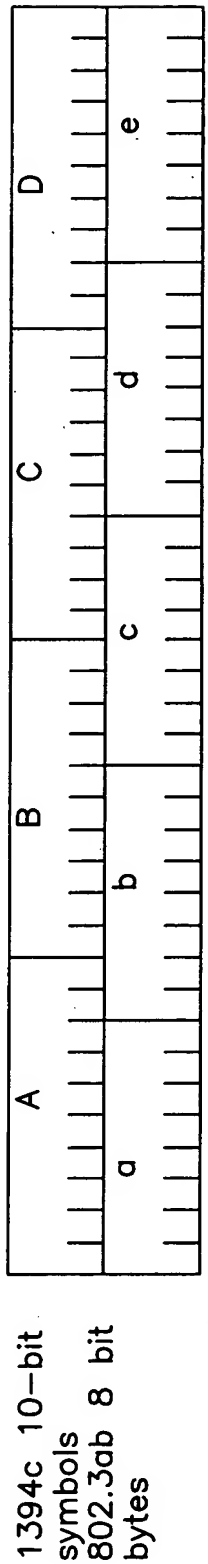

FIG. 1
(PRIOR ART)

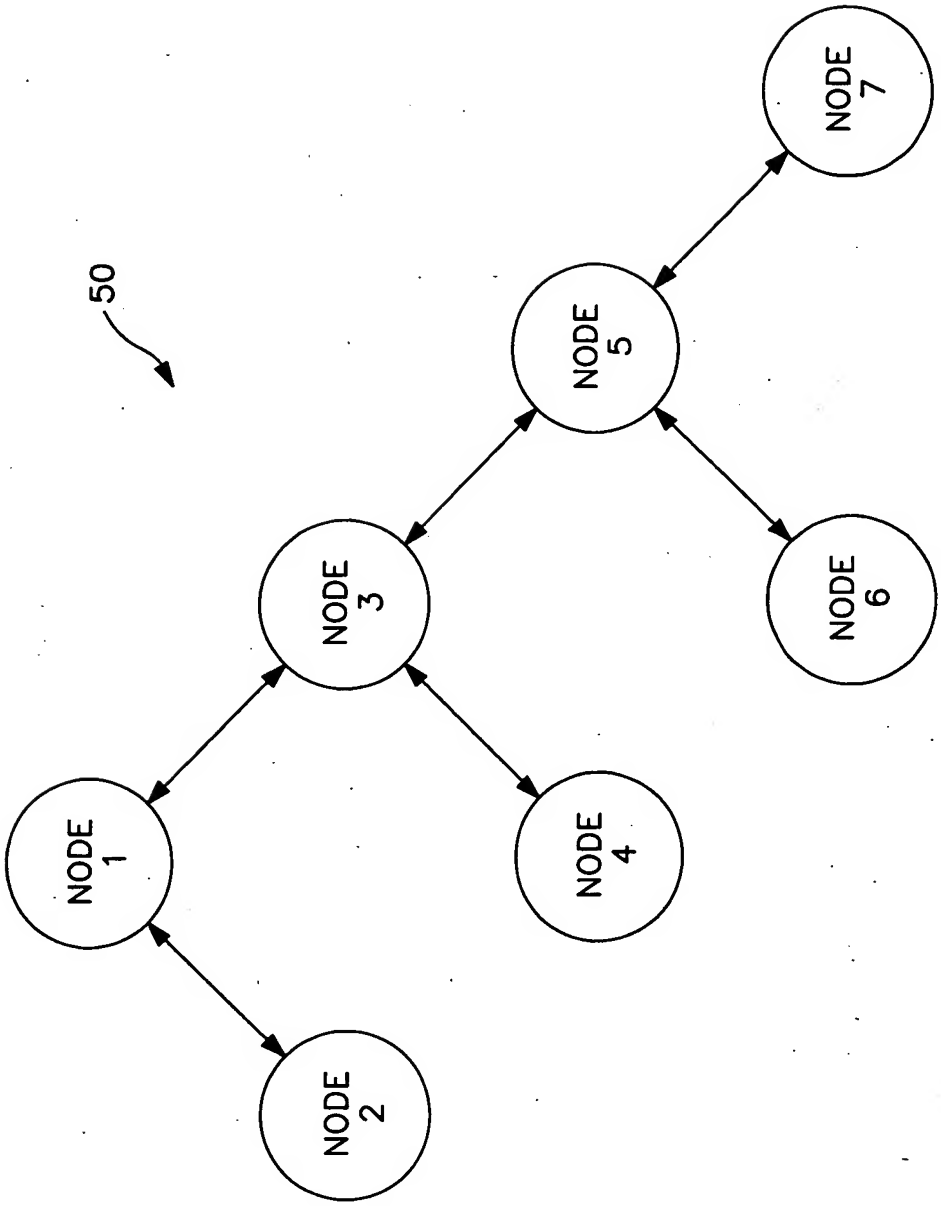

FIG. 2

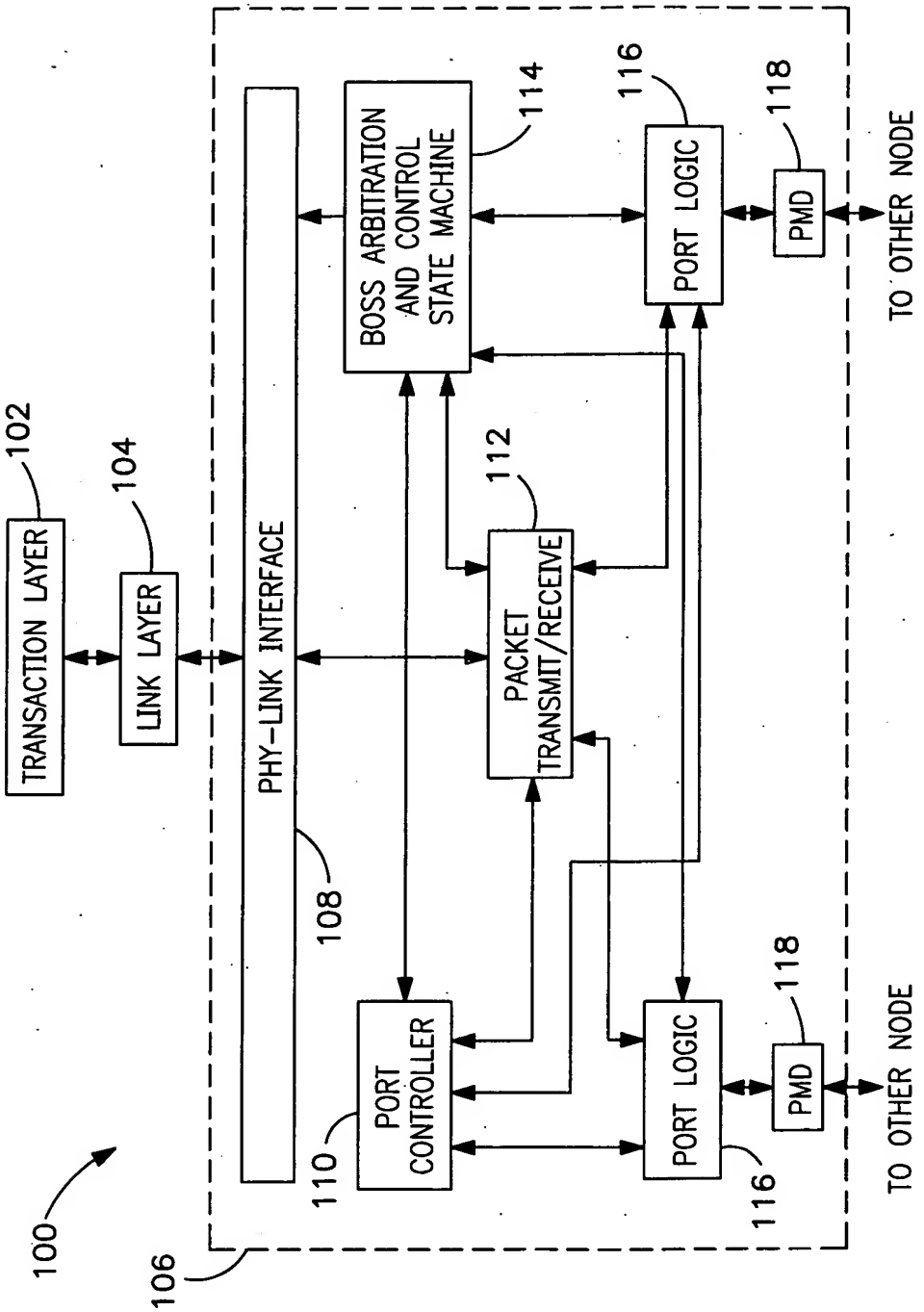
100
102
TRANSACTION LAYER
104
LINK LAYER
106
PHY-LINK INTERFACE
108
110
PORT CONTROLLER
112
PACKET TRANSMIT/RECEIVE
114
BOSS ARBITRATION AND CONTROL STATE MACHINE
116
PORT LOGIC
118
PMD
TO OTHER NODE
116
PORT LOGIC
118
PMD
TO OTHER NODE

FIG. 3

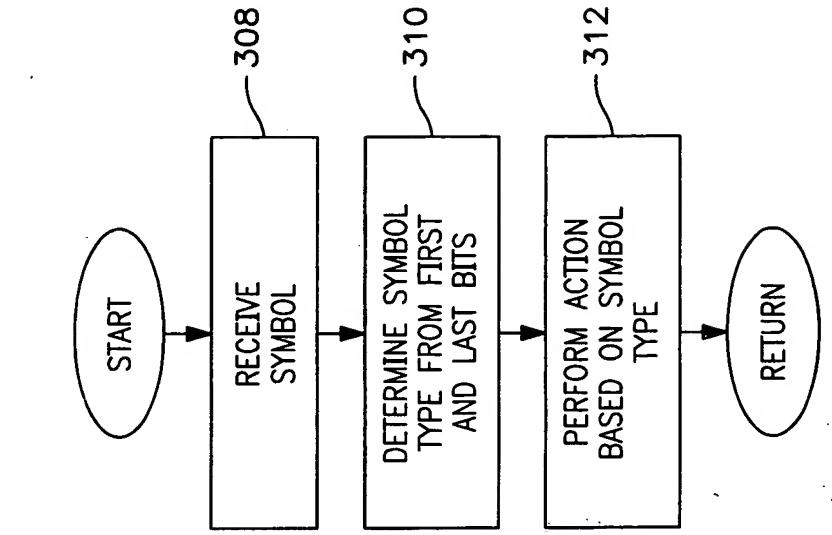
START
RECEIVE SYMBOL
308
DETERMINE SYMBOL TYPE FROM FIRST AND LAST BITS
310
PERFORM ACTION BASED ON SYMBOL TYPE
312
RETURN

FIG. 5

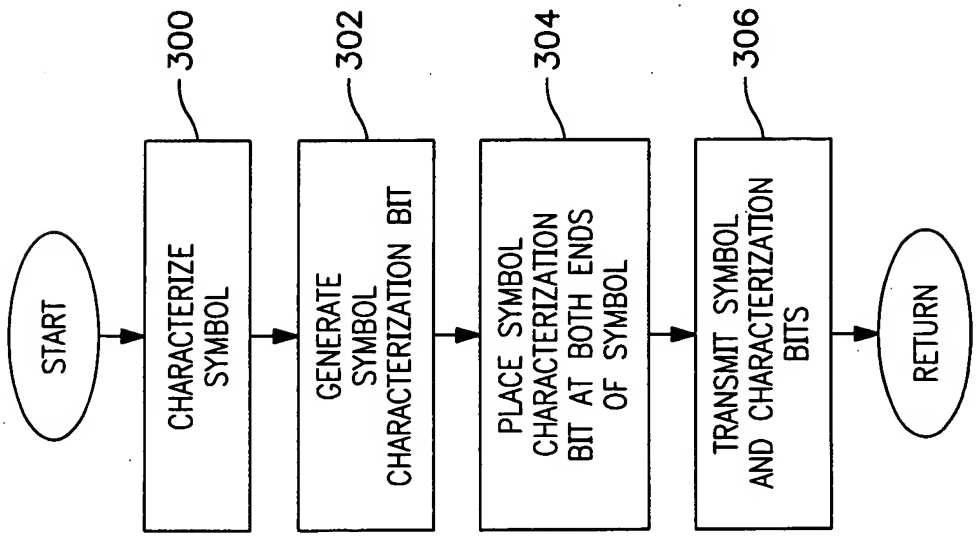
START
CHARACTERIZE SYMBOL
300
GENERATE SYMBOL CHARACTERIZATION BIT
302
PLACE SYMBOL CHARACTERIZATION BIT AT BOTH ENDS OF SYMBOL
304
TRANSMIT SYMBOL AND CHARACTERIZATION BITS
306
RETURN

FIG. 4

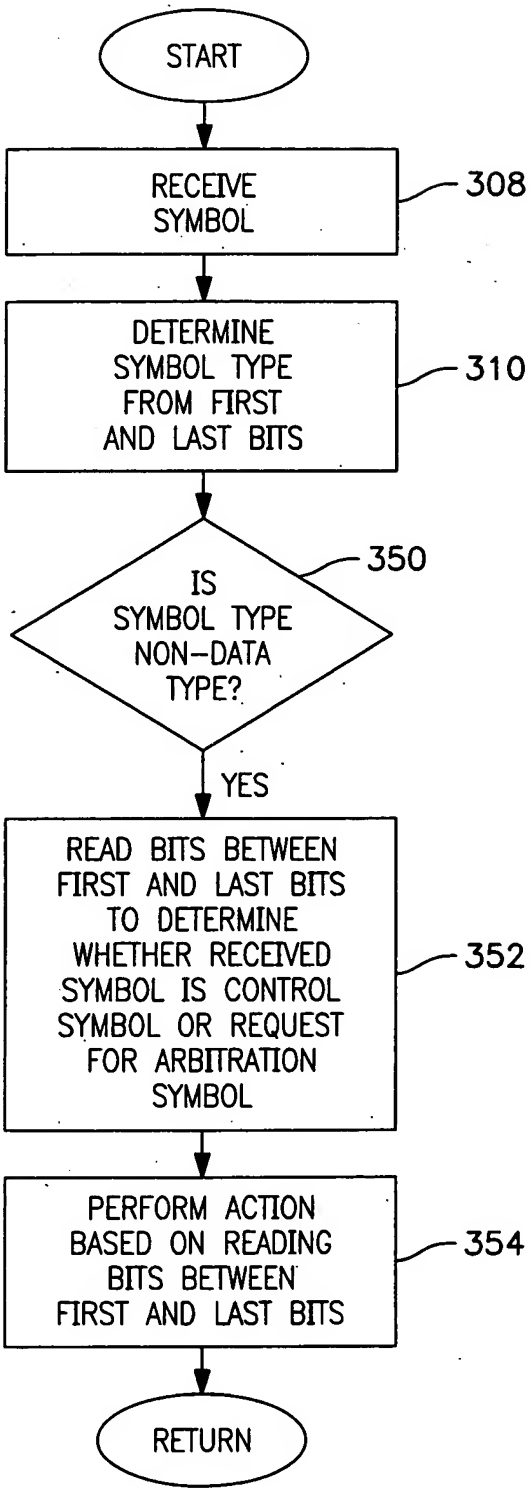
START
RECEIVE SYMBOL
308
DETERMINE SYMBOL TYPE FROM FIRST AND LAST BITS
310
IS SYMBOL TYPE NON-DATA TYPE?
350
YES
READ BITS BETWEEN FIRST AND LAST BITS TO DETERMINE WHETHER RECEIVED SYMBOL IS CONTROL SYMBOL OR REQUEST FOR ARBITRATION SYMBOL
352
PERFORM ACTION BASED ON READING BITS BETWEEN FIRST AND LAST BITS
354
RETURN

FIG. 6

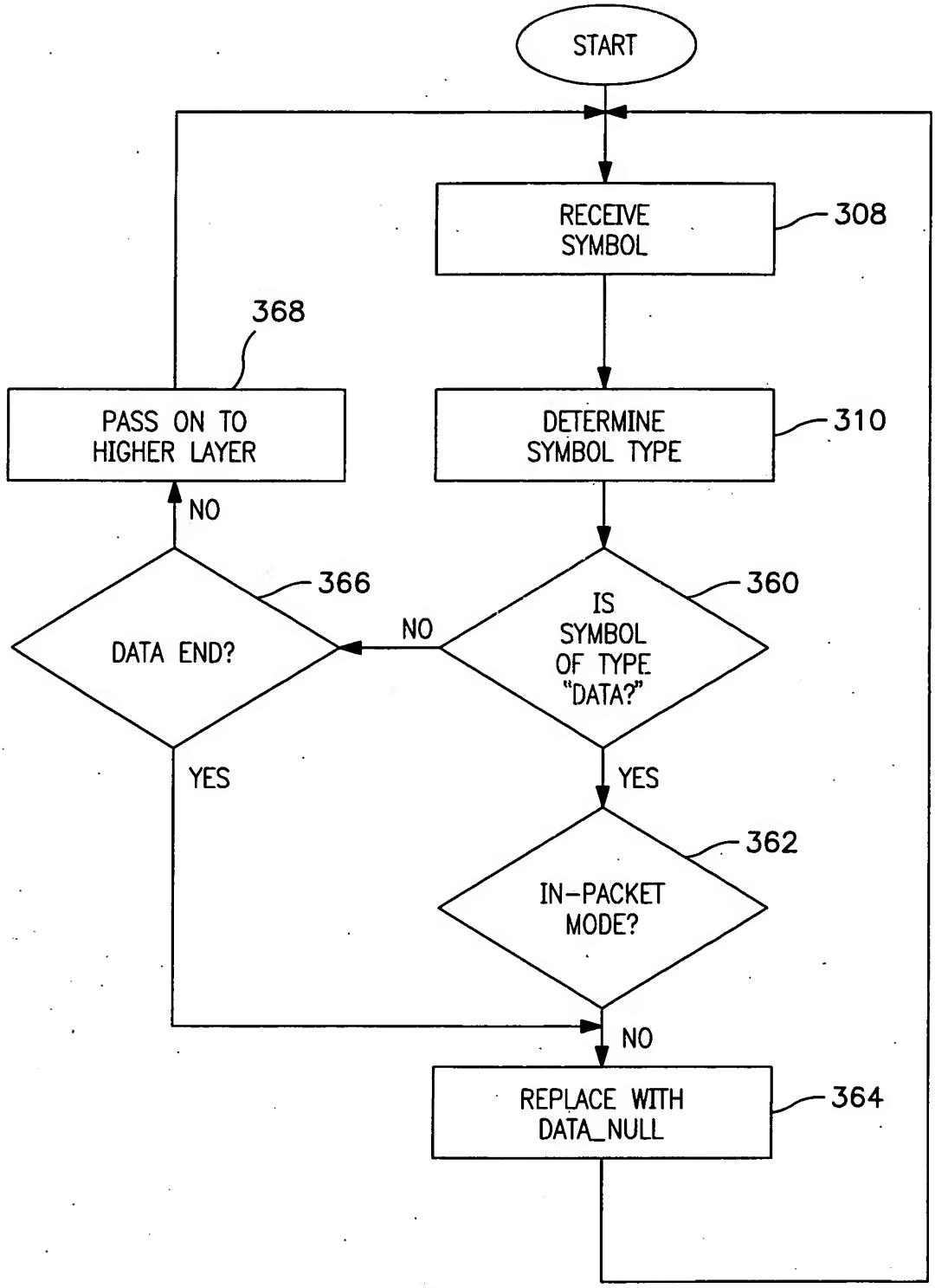
START
RECEIVE SYMBOL
308
DETERMINE SYMBOL TYPE
310
IS SYMBOL OF TYPE "DATA?"
360
NO
DATA END?
366
NO
PASS ON TO HIGHER LAYER
368
YES
YES
IN-PACKET MODE?
362
NO
REPLACE WITH DATA_NULL
364

FIG. 7

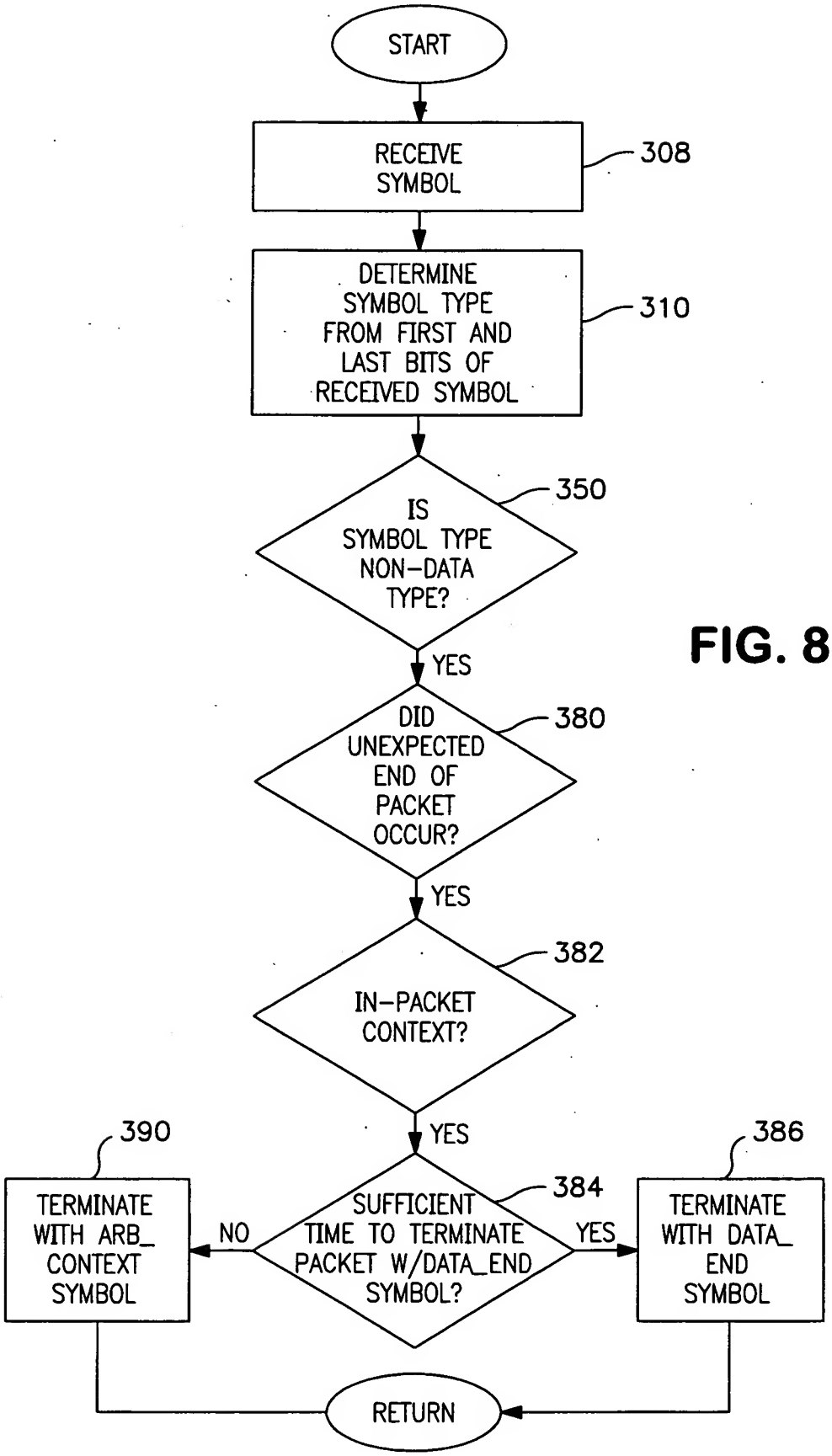
START
RECEIVE SYMBOL
308
DETERMINE SYMBOL TYPE FROM FIRST AND LAST BITS OF RECEIVED SYMBOL
310
IS SYMBOL TYPE NON-DATA TYPE?
350
YES
DID UNEXPECTED END OF PACKET OCCUR?
380
YES
IN-PACKET CONTEXT?
382
YES
SUFFICIENT TIME TO TERMINATE PACKET W/DATA_END SYMBOL?
384
NO
YES
TERMINATE WITH ARB_ CONTEXT SYMBOL
390
TERMINATE WITH DATA_ END SYMBOL
386
RETURN

FIG. 8